WHAT IS CLAIMED IS:

1. A wafer alkaline cell comprising a negative and a positive terminal, and a pair of sides comprising at least the majority of the boundary surface of said cell, said sides defining a short cell dimension therebetween, said short dimension being between about 0.5 and 6 mm, said cell comprising an anode assembly and a cathode assembly secured together forming a laminate structure, said anode assembly comprising an anode material and said cathode assembly comprising a cathode material therein.

2. The wafer cell of claim 1 wherein the anode material is selected from the group consisting of zinc, cadmium, metal hydride alloy, and mixtures thereof; and the cathode material is selected from the group consisting of MnO_2, NiOOH, AgO, Ag_2O, CuO, $AgCuO_2$, $Ag_2Cu_2O_3$, and mixtures thereof.

3. The cell of claim 1 wherein the cell is a primary alkaline cell and the anode material comprises zinc and the cathode material comprises solids comprising manganese dioxide and an aqueous electrolyte solution comprising potassium hydroxide in admixture with said solids, wherein the cathode is a semisolid having a porosity between about 45% and 70%.

4. The cell of claim 3 wherein the cathode material further comprises graphitized carbon black.

5. The cell of claim 1 wherein said anode assembly comprises a housing for said anode, and the cathode assembly comprises a housing for said cathode, said anode and cathode

assemblies being adhesively bonded together with a separator therebetween to from a laminate structure.

6. The cell of claim 5 wherein said anode housing comprises an anode frame having an inner peripheral edge defining the boundary of an anode cavity, an outer peripheral edge defining the outer boundary of the anode frame, said frame having a front side and opposing back side comprising said peripheral edges; said anode housing further comprising an anode current collector sheet bonded to the back side of said anode frame so that it faces an outer surface boundary of the cell, and wherein the anode material is inserted into said anode cavity so that it is in contact with said anode current collector sheet.

7. The cell of claim 5 wherein the cathode housing comprises a cathode frame having an inner peripheral edge defining the boundary of a cathode cavity, an outer peripheral edge defining the outer boundary of the cathode frame, said frame having a front side and opposing back side comprising said peripheral edges; said cathode housing further comprising a cathode current collector sheet bonded to the back side of said cathode frame so that it faces an outer surface boundary of the cell, wherein the cathode material is inserted into said cathode cavity so that it is in contact with said cathode current collector sheet.

8. The cell of claim 1 wherein said sides defining the short dimension of the cell therebetween comprise a pair of opposing sides parallel to each other.

9. The cell of claim 8 wherein the overall thickness of said cell is between about 0.5 and 6 mm, wherein said overall

thickness is defined as the distance between the outside surface of said opposing sides of said cell.

10. The cell of claim 1 wherein at least a portion of the cell's perimeter is polygonal.

11. The cell of claim 1 wherein at least a portion of the cell's perimeter is curvilinear.

12. The cell of claim 1 wherein at least a portion of said cell outer surface has a curvature.

13. The cell of claim 1 wherein at least a portion of said outer surface has a compound curvature.

14. The cell of claim 1 wherein a portion of said cell outer surface has a convex curvature and another portion of said outer surface has a concave curvature as viewed from outside the cell.

15. The cell of claim 1 wherein the cell thickness is not uniform.

16. The cell of claim 1 wherein said cell is of cuboid shape.

17. The cell of claim 1 wherein said cell is of rigid structure.

18. A primary alkaline cell comprising a negative and a positive terminal, and a pair of opposing sides comprising at least the majority of the boundary surface of said cell, said opposing sides defining a short cell dimension therebetween, said cell forming a laminate structure comprising an anode

assembly and a cathode assembly, said anode assembly comprising a housing for an anode material comprising zinc and said cathode assembly comprising a housing for cathode material comprising manganese dioxide; wherein each of said anode and cathode housings comprises a common unit frame, said common frame forming at least a portion of each of said anode and cathode housings, wherein said common frame has an inner peripheral edge defining an anode cavity on a first side of said frame and a cathode cavity on the opposing second side of said frame, wherein said anode material is inserted into said anode cavity on the first side of said frame and said cathode material is inserted into said cathode cavity in the opposing second side of said frame.

19. The cell of claim 18 wherein the cathode material comprises solids comprising manganese dioxide and an aqueous electrolyte solution comprising potassium hydroxide in admixture with said solids, wherein the cathode is a semisolid having a porosity between about 45% and 70%.

20. The cell of claim 18 wherein said laminate structure has a separator between said anode material and cathode material.

21. The cell of claim 18 wherein said anode housing further comprises an anode current collector sheet bonded to said first side of said common frame so that it faces an outer surface boundary of the cell, wherein said anode material is in contact with said anode current collector sheet.

22. The cell of claim 18 wherein said cathode housing further comprises a cathode current collector sheet bonded to said opposing second side of said frame so that it faces an

outer surface boundary of the cell, wherein said cathode material is in contact with said cathode current collector sheet.

23. The cell of claim 18 wherein said pair of opposing sides of the cell are parallel to each other.

24. The cell of claim 18 wherein said cell is of cuboid shape.

25. The cell of claim 18 wherein said cell is of rigid structure.

26. The cell of claim 18 wherein the overall thickness of said cell is between about 0.5 and 6 mm, wherein said overall thickness is defined as the distance between the outside surfaces of said opposing sides of said cell.

27. A primary alkaline cell comprising a negative and a positive terminal, and a pair of opposing sides comprising at least the majority of the boundary surface of said cell, said opposing sides defining a short cell dimension therebetween defining the cell thickness, said cell comprising an anode assembly and a cathode assembly bonded together forming a laminate structure, said anode assembly comprising an anode comprising zinc and aqueous alkaline electrolyte and said cathode assembly comprising a cathode comprising manganese dioxide and aqueous alkaline electrolyte;

wherein said anode assembly comprises a anode housing comprising an anode frame having an inner peripheral edge defining the boundary of an anode cavity for housing said anode, an outer peripheral edge defining the outer boundary of the anode frame, wherein said anode frame has a front side

and opposing back side comprising said peripheral edges and an anode current collector sheet is bonded with bonding material to the back side of said frame so that it faces an outer surface boundary of the cell and said anode is inserted into said cavity so that it is in contact with a portion of said anode current collector sheet;

wherein the anode frame width is at least as wide as the cell thickness to provide a first elongated leakage block path for said cell, said first electrolyte leakage block path defined by said bonding material between said anode frame and said anode current collector sheet to reduce the chance of electrolyte leaking from the cell interior to the external environment.

28. The cell of claim 27 wherein plastic film wrap is applied over the cell exterior surface leaving exposed a negative terminal contact portion and positive terminal contact portion on the cell surface.

29. The cell of claim 28 wherein there is adhesive sealant between said plastic film wrap and the cell exterior surface.

30. The cell of claim 28 wherein a band of said film wrap is applied peripherally around the edges which comprise the short dimension of said cell and heat shrunk over at least the majority of said edges of the cell.

31. The cell of claim 28 wherein the plastic film wrap comprises at least a first and second plastic film layer.

32. The cell of claim 31 wherein there is adhesive sealant between the cell surface and said first plastic film layer.

33. The cell of claim 32 wherein there is adhesive sealant between said first plastic film layer and said second plastic film layer.

34. The cell of claim 32 wherein there is adhesive sealant between the cell surface and at least a portion of said second plastic film layer.

35. The cell of claim 31 wherein there is adhesive sealant between the cell surface and said first plastic film layer, there is adhesive sealant between the cell surface and a portion of said second film layer and there is adhesive sealant between said first and second film layers.

36. The cell of claim 35 wherein each of the first and second film layers are applied in the form of a closed film band, and acting together cover over at least the majority of said cell surface.

37. The cell of claim 35 wherein each of the first and second film layers are applied in the form of a closed film band and acting together cover over at least the majority of said cell surface and wherein said film bands have their central longitudinal axis at right angles to each other.

38. The cell of claim 36 wherein said first film band is applied peripherally around the edges which comprise the short dimension of said cell and heat shrunk over at least the majority of said edges of the cell; and wherein said second film band is applied laterally over the majority of the two

opposing sides of said cell and heat shrunk to cover over at least a part of said first film band.

39. The cell of claim 36 wherein each of said bands is heat shrunk over said cell.

40. The cell of claim 38 wherein the adhesive sealant between the cell surface and said first film band, the adhesive sealant between the cell surface and said second film band and the adhesive sealant between said first and second film bands provides a second electrolyte leakage block path for said cell.

41. The cell of claim 40 wherein said second electrolyte leakage block path extends from the outer peripheral edge of said anode frame to said negative terminal, said distance being at least as long as the cell thickness.

42. The cell of claim 29 wherein the overall thickness of said cell is between about 0.5 and 6 mm, wherein said overall thickness is defined as the distance between the outside surface of said opposing sides of said cell.

43. The cell of claim 42 wherein said first and second electrolyte leakage block paths together span a distance at least between about 1.5 and 4 times the cell thickness.

44. The cell of claim 29 wherein the exposed area on the cell surface forming said negative terminal contact comprises between about 1 and 5 percent of the cell footprint area.

45. The cell of claim 29 wherein said cell is of cuboid shape and rigid structure.

46. The cell of claim 29 wherein the cathode comprises solids comprising manganese dioxide and an aqueous electrolyte solution comprising potassium hydroxide in admixture with said solids, wherein the cathode is a semisolid having a porosity between about 45% and 70%.

47. The cell of claim 46 wherein the cathode material further comprises graphitized carbon black.

48. The cell of claim 29 wherein the cathode assembly comprises a cathode frame having an inner peripheral edge defining the boundary of a cathode cavity, an outer peripheral edge defining the outer boundary of the cathode frame, said cathode frame having a first side and opposing second side comprising said peripheral edges; said cathode assembly further comprising a cathode current collector sheet bonded to the opposing second side of said cathode frame so that it faces an outer surface boundary of the cell; and a cathode material inserted into said cathode cavity so that it is in contact with said cathode current collector sheet.

49. The cell of claim 48 wherein the anode and cathode assemblies are bonded together with a separator therebetween to form a laminate structure.

50. The cell of claim 49 wherein said laminate structure forms said cell, said laminate structure being adhesively sealed so that cell contents are retained within said structure.

51. The cell of claim 49 wherein the positive terminal is in electrical communication with the cathode current sheet and the negative terminal is in electrical communication with said anode current collector sheet.

52. The cell of claim 27 wherein said opposing sides of said cell are parallel to each other.

53. The cell of claim 50 wherein at least one of the anode and cathode current collector sheets are riveted to the respective anode and cathode frames.

54. The cell of claim 50 wherein said anode and cathode frames are comprised of electrically insulating material.

55. The cell of claim 49 wherein said anode and cathode frames comprises a plastic material.

56. The cell of claim 27 wherein the anode current collector sheet comprises copper.

57. The cell of claim 48 wherein the cathode current collector sheet comprises a carbon coated metal sheet.

58. The cell of claim 49 wherein the cathode current collector sheet comprises a carbon coated nickel sheet.

59. The cell of claim 48 wherein the cathode current collector sheet comprises a nickel sheet.

60. A primary alkaline cell comprising a negative and a positive terminal, and a pair of opposing sides comprising at least the majority of the boundary surface of said cell, said opposing sides defining a short cell dimension therebetween, said cell comprising an anode assembly and a cathode assembly bonded together forming a laminate structure, said anode assembly comprising an anode material comprising zinc and alkaline electrolyte and said cathode assembly comprising a cathode material comprising manganese dioxide and alkaline electrolyte;

wherein said anode assembly comprises an anode frame having an inner peripheral edge defining the boundary of an anode cavity, an outer peripheral edge defining the outer boundary of the anode frame, said frame having a front side and opposing back side comprising said peripheral edges; said anode assembly further comprising an anode current collector sheet bonded to the back side of said frame so that it faces an outer surface boundary of the cell; and wherein the anode material inserted into said anode cavity so that it is in contact with said anode current collector sheet;

wherein said anode current collector sheet is bonded along the width of said anode frame by employing a first and a second adhesive being substantially different adhesives placed in a juxtaposed relationship to each other along the back side of said anode frame facing said anode current collector sheet.

61. The cell of claim 60 wherein the first adhesive is applied closest to the outer peripheral edge of said anode frame and functions primarily as a structural adhesive imparting structural strength between said anode frame and said anode current collector sheet; wherein the second

adhesive is applied closer to the inner peripheral edge of said anode frame and is an adhesive-sealant which improves overall bonding strength between said anode frame and said anode current collector sheet and also functions as a sealant to seal out electrolyte.

62. The cell of claim 61 wherein said first adhesive is selected from the group consisting of epoxy, and UV initiated acrylate adhesives, and said second adhesive is selected from the group consisting of a tacky polyamide, functionalized polyethylene adhesive, and asphalt.

63. The cell of claim 60 wherein the overall thickness of said cell is between about 0.5 and 6 mm, wherein said overall thickness is defined as the distance between the outside surface of said opposing sides of said cell.

64. The cell of claim 60 wherein the overall thickness of said cell is between about 1.5 and 6 mm, wherein said overall thickness is defined as the distance between the outside surface of said opposing sides of said cell.

65. The cell of claim 60 wherein said cell is of rigid structure.

66. The cell of claim 60 wherein the cathode comprises solids comprising manganese dioxide and an aqueous electrolyte solution comprising potassium hydroxide in admixture with said solids, wherein the cathode is a semisolid having a porosity between about 45% and 70%.

67. The cell of claim 66 wherein the cathode material further comprises graphitized carbon black.

68. The cell of claim 60 wherein said cathode assembly comprises a cathode frame having an inner peripheral edge defining the boundary of a cathode cavity, an outer peripheral edge defining the outer boundary of the cathode frame, said frame having a front side and opposing back side comprising said peripheral edges; said cathode assembly further comprising a cathode current collector sheet bonded to the back side of said frame so that it faces an outer surface boundary of the cell; and a cathode material inserted into said cathode cavity so that it is in contact with said cathode current collector sheet;

wherein said cathode current collector sheet is bonded along the width of said cathode frame by employing a first and a second adhesive being different adhesives placed in a juxtaposed relationship to each other along the back side of said cathode frame facing said cathode current collector sheet.

69. The cell of claim 68 wherein the first adhesive is applied closest to the outer peripheral edge of said cathode frame and functions primarily as a structural adhesive imparting structural strength between said cathode frame and said cathode current collector sheet wherein the second adhesive is applied closer to the inner peripheral edge of said cathode frame and said second adhesive is an adhesive-sealant which improves overall bonding strength between said cathode frame and cathode current collector sheet and also functions as a sealant to seal out electrolyte.

70. The cell of claim 69 wherein said first adhesive is selected from the group consisting of epoxy, and UV initiated acrylate adhesives, and said second adhesive is selected from the group consisting of a tacky polyamide, functionalized polyethylene adhesive, and asphalt.

71. The cell of claim 68 wherein said anode and cathode frames comprise a plastic material.

72. The cell of claim 60 wherein said cell comprises alkaline electrolyte comprising aqueous potassium hydroxide.

73. The cell of claim 60 wherein said laminate structure forming said cell is wrapped with a heat shrinkable plastic film.

74. The cell of claim 60 wherein the anode current collector sheet comprises copper.

75. The cell of claim 67 wherein the cathode current collector sheet comprises a carbon coated metal sheet.

76. The cell of claim 67 wherein the cathode current collector sheet comprises a carbon coated nickel sheet.

77. The cell of claim 67 wherein the cathode current collector sheet comprises a nickel sheet.